

IN THE CLAIMS:

This version of the claims replaces and supercedes all prior versions of the claims.

1-25 (cancelled)

26. (Twice Amended) An electronic watch comprising:

a power supply;

an oscillator circuit;

a means for generating a drive pulse;

a drive motor which drives a hand, in response to a drive pulse output from said drive pulse generating means;

a drive circuit for controlling drive of said drive motor; and

a drive circuit controlling means for controlling said drive circuit; and said electronic watch further comprising;

a means for detecting a non-proper condition which sense an occurrence of a condition in which proper drive of said drive motor is not possible under a prescribed condition;

means for instructing a change of a control mode which instructs said drive circuit controlling means to change the control mode that is currently being executed, in response to a detection signal output from said non-proper condition detecting means, wherein said means for instructing a change of a control mode instructs said drive circuit controlling means for controlling said drive circuit means to return to the original controlling mode which had been used before the current controlling mode was instituted, after said control mode had been changed and no such detection signal has been output from said non-proper condition detecting

means:

wherein said non-proper condition detecting means is a means for detecting electric power which outputs a detecting signal in response to a detection of reduction in power condition in said power supply; and

wherein said drive pulse generation means is provided with a fast-forward (high-speed) pulse generation circuit which generates a fast-forward pulse and a low-voltage fast-forward pulse generating means that generates a low-voltage fast-forward pulse which has a pulse width that is greater than that of said fast-forward pulse, and wherein said drive circuit controlling means permits passage of said low-voltage fast-forward pulse, in response to said detection signal output from said electric power detecting means.

27. (Twice Amended) An electronic watch comprising:

a power supply;

an oscillator circuit;

a means for generating a drive pulse;

a drive motor which drives a hand, in response to a drive pulse output from said drive pulse generating means;

a drive circuit for controlling drive of said drive motor; and

a controlling means for controlling said drive circuit; and said electronic watch further comprising:

a means for detecting a non-proper condition which sense an occurrence of a condition in which proper drive of said drive motor is not possible under a prescribed condition;

means for instructing a change of a control mode which instructs said drive circuit

controlling means to change the control mode that is currently being executed, in response to a detection signal output from said non-proper condition detecting means, wherein said means for instructing a change of a control mode instructs said controlling means for controlling said drive circuit means to return to the original controlling mode after when said control mode had been changed and no such detection signal had been output from said non-proper condition detecting means, wherein said drive motor comprises a first drive motor and a second drive motor and wherein said non-proper condition detecting means is a means for monitoring a rotating condition of the second drive motor, while said control mode change instructing means is a means for instructing said drive circuit controlling means to make the control mode of said first drive motor changed, in response to said detection signal output from said non-proper condition detecting means and further wherein said electronic watch further comprises a load compensation control system which detects whether or not said drive motor had been rotated in response to a prescribed drive pulse which is supplied by said drive circuit means and in the case in which a judgment is made that said drive motor had not been rotated, which supplies a prescribed compensation drive pulse to said drive circuit means, thereby compensating the rotation of said drive motor and further wherein said non-proper condition detecting means is a means for detecting an estimation electric power level of said power supply which is discriminated by said load compensation control system.

28. (Cancelled)

29. (Twice Amended) An electronic watch comprising:

a power supply;

an oscillator circuit;

a means for generating a drive pulse;

a drive motor which drives a hand, in response to a drive pulse output from said drive pulse generating means;

a drive circuit for controlling drive of said drive motor; and

a drive circuit controlling means for controlling said drive circuit; and said drive pulse generating means further comprising;

a normal hand-drive pulse generation circuit which generates a normal hand-drive pulse and a non-normal hand-drive pulse generation circuit which generates a non-normal hand-drive pulse that differs from the normal hand-drive pulse, and said electronic watch further comprising;

a means for detecting a non-proper condition which sense an occurrence of a condition in which proper drive of said drive motor is not possible under a prescribed condition; and

means for instructing a change of a control mode which instructs said drive circuit controlling means to prohibit an output of said non-normal hand-drive pulse, in response to a detection signal output from said non-proper condition detecting means; and

wherein said non-normal hand-drive pulse is a fast-forward pulse.

30. (Cancelled)

31. (Cancelled)

32. (New) An electronic watch according to claim 29, wherein said drive motor comprises a first drive motor and a second drive motor and wherein said non-proper condition detecting means is a means for monitoring a rotating condition of the second drive motor, while said drive circuit controlling means for controlling said drive circuit prohibits said first driving motor from being driven by said non-normal hand-drive pulse.

33. (Amended) An electric watch comprising:

a power supply;

an oscillator circuit;

a means for generating a drive pulse;

a drive motor which drives a hand, in response to a drive pulse output from said drive pulse generating means;

a drive circuit for controlling drive of said drive motor;

a drive circuit controlling means for controlling said drive circuit;

a means for detecting a non-proper condition which senses an occurrence of a condition in which proper drive of said drive motor is not possible under a prescribed condition;
and

a load compensation control system which detects whether or not said drive motor had been rotated in response to a prescribed drive pulse which is supplied by said drive circuit, and in the case in which a judgment is made that said drive motor had not been rotated, supplies a prescribed compensation drive pulse to said drive circuit means;

a control mode change instructing means for instructing said drive circuit controlling means to stop said load compensation control system, in response to a detection signal output from said non-proper condition detecting means.

34. (New) An electronic watch according to claim 33, wherein said drive motor comprises a first drive motor and a second drive motor and wherein said non-proper condition detecting means is a means for monitoring a rotating condition of the second drive motor, while said drive circuit controlling means stops said load compensation control system of said first drive motor.

35. (New) An electronic watch according to claim 33, wherein said non-proper condition

detecting means is a means for detecting electric power which outputs a detecting signal in response to a detection of a reduction in power condition in said power supply.

36. (Amended) An electronic watch according to claim 33, wherein said drive circuit controlling means supplies predetermined compensation drive pulse to said drive circuit when said load compensation control system is stopped.

37. (Twice amended) An electronic watch according to claims 27 or 33, wherein said drive pulse generating means comprises a normal hand-drive pulse generation circuit means which generates a normal hand-drive pulse and further comprising at least one means selected from a group of a low-voltage hand-drive pulse generating means, a fast-forward (high-speed) pulse generation circuit means, a low-voltage fast-forward pulse generating means, a reverse-rotation pulse generation circuit means, and a functional hand drive high-speed pulse generation circuit means.

38. (Thrice Amended) An electronic watch comprising:

a power supply;

an oscillator circuit;

a means for generating a drive pulse;

a drive motor which drives a hand, in response to a drive pulse output from said drive pulse generating means;

a drive circuit for controlling drive of said drive motor;

a drive circuit controlling means for controlling said drive circuit;

a means for detecting a non-proper condition which senses an occurrence of a condition in which proper drive of said drive motor is not possible under a prescribed condition; and

a load compensation control system which detects whether or not said drive motor has been rotated in response to a prescribed drive pulse which is supplied by said drive circuit, and in the case in which a judgment is made that said drive motor has not been rotated, supplies a prescribed compensation drive pulse to drive circuit controlling means; and further wherein said drive pulse generating means comprises at least one pulse generation circuit means selected from a circuit means group consisting of a normal hand-drive pulse generation circuit means, a fast-forward (high-speed) pulse generation circuit means, a reverse-rotation pulse generation circuit means and a functional hand drive pulse generation circuit means and wherein said selected pulse generation circuit means generates a plurality of types of drive pulses having mutually different drive capacities from each other.

39. (Twice amended) An electronic watch according to claims 27 or 33, wherein said drive pulse generating means comprising a normal hand-drive pulse generation circuit means which generates a normal hand-drive pulse and further comprising at least one means selected from a group of a low-voltage hand-drive pulse generating means, a fast-forward (high-speed) pulse generation circuit means, a low-voltage fast-forward pulse generating means, a reverse-rotation pulse generation circuit means and a functional hand drive high-speed pulse generation circuit means, and further wherein said electronic watch further comprises a load compensation control system which detects whether or not said drive motor had been rotated in response to a prescribed drive pulse which is supplied by said drive circuit means and in the case in which a judgment is made that said drive motor had not been rotated, which supplies a prescribed compensation drive pulse to said drive circuit means, thereby compensating the rotation of said

drive motor and further wherein said compensation drive pulse being included in at least one means selected from said normal hand-drive pulse generation circuit means, said fast-forward (high-speed) pulse generation circuit means, said reverse-rotation pulse generation circuit means, and said functional hand drive high-speed pulse generation circuit means.

40. (Twice Amended) An electronic watch according to any one of claims 26, 27, and 29, wherein said control mode change instructing means, in response to a detection signal of said non-proper condition detection means, outputs an instruction to said drive circuit controlling means so as to stop the control mode which is currently being executed.

41. (Amended) An electronic watch according to any one of claims 26, 27, 29 and 33, wherein said control mode change instructing means, in response to a detection signal of said non-proper condition detection means, outputs an instruction to said drive circuit controlling means so as to change a control mode which is currently being executed to another control mode.

42. (Amended) An electronic watch according to any one of claims 26, 27, 29 and 33, wherein said control mode change instructing means, in response to a detection signal of said non-proper condition detection means, outputs an instruction to said drive circuit controlling means so as to replace a drive pulse used in the control mode currently being executed to another drive pulse.

43. (Twice Amended) An electronic watch according to any one of claims 26, 27, 29, 33 and 38, wherein said electric power of said power supply is varied with the passage of time.

44. (Twice Amended) An electronic watch according to any one of claims 26, 27, 29, 33 and 38, wherein said power supply comprises one type selected from a titanium-lithium battery, a large capacitance condenser, a secondary battery and a solar battery.

45. (Amended) An electronic watch according to claim 26, wherein said non-proper condition detecting means further comprising a first non-proper condition detecting means for detecting a non-proper condition of said drive motor, which sense an occurrence of a condition in which proper drive of said drive motor is not possible under a prescribed condition, and a second non-proper condition detecting means for detecting a non-proper condition of said drive motor which senses an occurrence of a condition in which proper drive of said drive motor is not possible under a prescribed condition even after the control mode had been changed for a predetermined period; and

said control mode change instructing means further comprising a first instructing means for instructing a change of a control mode which instructs said drive circuit control means to change the control mode that is currently being executed, in response to said detection signal output from said first non-proper condition detecting mean, and a second instructing means for instructing a change of a control mode which instructs said drive circuit control means to change the currently executed control mode instructed by said second non-proper condition detecting means to the original control mode when a non-proper condition of said drive motor has not been detected within said predetermined period, and which instructs said drive circuit control means to change the currently executed control mode instructed by said second non-proper condition detecting means, to a further separate control mode when non-proper condition of said drive motor has been detected within said predetermined period.

46. (Amended) An electronic watch comprising:

a power supply;

an oscillator circuit;

a means for generating a drive pulse;

a drive motor which drives a hand, in response to a drive pulse output from said drive pulse generating means;

a drive circuit for controlling drive of said drive motor; and

a drive circuit controlling means for controlling said drive circuit; and said drive pulse generating means further comprising;

a normal hand-drive pulse generation circuit which generates a normal hand-drive pulse and a non-normal hand-drive pulse generation circuit which generates a non-normal hand-drive pulse that differs from the normal hand-drive pulse, and said electronic watch further comprising;

a means for detecting a non-proper condition which sense an occurrence of a condition in which proper drive of said drive motor is not possible under a prescribed condition; and

means for instructing a change of a control mode which instructs said drive circuit controlling means to prohibit an output of said non-normal hand-drive pulse, in response to a detection signal output from said non-proper condition detecting means; and

wherein said non-normal hand-drive pulse is a reverse rotation pulse.

47. (New) An electronic watch according to claim 38, wherein said watch is provided with a pulse selection circuit which can select one driving pulse among said plurality of types of driving pulses.

48. (New) An electronic watch according to claim 47, wherein said pulse selection circuit determines a selection condition for selecting one of said driving pulses with reference to said load compensation control system.